

CLAIMS

What is claimed is:

1. A remedial healthcare nanodiamond composition, comprising:
 - a) a biologically acceptable carrier; and
 - 5 b) a plurality of nanodiamond particles dispersed in the carrier with a dispersant, said nanodiamond particles having an average size of from about 0.5 nm to about 50 nm.
- 10 2. The remedial composition of claim 1, wherein the composition is formulated as a member selected from the group consisting of dental filling, lotion, deodorant, toothpaste, shampoo, antibiotic, dermal strip, skin cleanser, and exfoliant.
- 15 3. The remedial composition of claim 2, wherein the dispersant is selected from the group consisting of anionic surfactants, electrolytes, alcohols, metal chlorides, metal nitrates, viscous biologically acceptable carriers, and mixtures thereof.
4. The remedial composition of claim 2, wherein the composition is formulated as a dental filling.
- 20 5. The remedial composition of claim 2, wherein the composition is formulated as a lotion.
6. The remedial composition of claim 2, wherein the composition is formulated as a deodorant.
- 25 7. The remedial composition of claim 1, wherein the plurality of nanodiamond particles comprise from about 1 wt% to about 60 wt% of the composition.
8. The remedial composition of claim 1, wherein the plurality of nanodiamond particles have an average size from about 0.5 nm to about 10 nm.
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9. The remedial composition of claim 8, wherein the plurality of nanodiamond particles have an average size from about 0.5 nm to about 8 nm.
10. A cosmetic nanodiamond composition, comprising:
 - 5 a) a cosmetically acceptable carrier; and
 - b) a plurality of nanodiamond particles dispersed in the carrier with a dispersant, said nanodiamond particles having an average size of from about 0.5 nm to about 50 nm.
- 10 11. The cosmetic composition of claim 10, wherein the composition is formulated as a member selected from the group consisting of nail polish, eyeliner, lip gloss, and exfoliant.
12. The cosmetic composition of claim 11, wherein the composition is formulated as 15 a nail polish.
13. The cosmetic composition of claim 12, further comprising additives selected from the group consisting of dispersant, pigment, plasticizer, bubbling agent, solvent, stabilizer, and combinations thereof.
- 20 14. The cosmetic composition of claim 12, wherein the dispersant is stearalkonium hectorite.
15. The cosmetic composition of claim 10, wherein the plurality of nanodiamond 25 particles comprise from about 1 wt% to about 50 wt% of the composition.
16. The cosmetic composition of claim 10, wherein the plurality of nanodiamond particles have an average size from about 0.5 nm to about 10 nm.
- 30 17. The cosmetic composition of claim 16, wherein the plurality of nanodiamond particles have an average size from about 0.5 nm to about 8 nm.

18. The nanodiamond composition of either of claims 1 or 10, wherein the plurality of nanodiamond particles are produced by shock wave synthesis.

5 19. A method of binding biological molecules, comprising the steps of:

a) formulating a nanodiamond composition containing a plurality of nanodiamond particles dispersed in a biologically acceptable carrier; and

b) contacting a biological material with the nanodiamond composition such that at least a portion of the biological material becomes bonded to the 10 nanodiamond composition.

20. The method of claim 19, further comprising the step of removing the nanodiamond composition containing biological material.

15 21. The method of claim 19, wherein the plurality of nanodiamond particles have an average size from about 0.5 nm to about 50 nm.

22. The method of claim 21, wherein the plurality of nanodiamond particles have an average size from about 0.5 nm to about 10 nm.

20 23. The method of claim 19, wherein the plurality of nanodiamond particles comprise from about 1 wt% to about 60 wt% of the nanodiamond composition.

25 24. The method of claim 19, wherein the nanodiamond composition is formulated as a member selected from the group consisting of deodorant, toothpaste, shampoo, antibiotic, dermal strip, DNA test strip, and skin cleanser.

25. The method of claim 24, wherein the nanodiamond composition is formulated as a skin cleanser.

26. The method of claim 24, wherein the nanodiamond composition is formulated as a deodorant.

27. The method of claim 19, wherein said biological material is selected from the 5 group consisting of organic oils, sebum, bacteria, epithelial cells, amino acids, proteins, DNA, and combinations thereof.